PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Participation in the Families First Home Visiting Program and First
	Nations Families' Public Health Outcomes in Manitoba, Canada: A
	Retrospective Cohort Study using Linked Administrative Data
AUTHORS	Enns, Jennifer; Chartier, Mariette; Nickel, Nathan; Chateau, Dan; Campbell, Rhonda; Phillips-Beck, Wanda; Sarkar, Joykrishna; Burland, Elaine; Lee, Janelle Boram; Katz, Alan; Santos, Rob; Brownell, Marni

VERSION 1 - REVIEW

REVIEWER	Lynn Kemp
	Western Sydney University, Australia
REVIEW RETURNED	19-Apr-2019

GENERAL COMMENTS	This is a well written paper, however, for the international
	audience some minor change is needed. Specifically, within the
	abstract, key points, and introduction the authors need to make
	clear that this study is of the Indigenous sub-population of a
	program that serves both Indigenous and non-Indigenous at-risk
	families. This is not made clear until the last paragraph of the
	introduction. Making this clear in the abstract and key points would
	enhance the reader's engagement with the paper.

REVIEWER	Ha Nguyen
	University of South Australia, Australia
	University of Sydney, Australia
REVIEW RETURNED	10-May-2019

GENERAL COMMENTS	Thank you for giving me the opportunity to review this manuscript.
	This is a well conducted study and the method used is sound. The
	analyses of association between program exposure and
	health/social outcome are robust with the application of inverse
	probability of treatment weights to control for measured and
	unmeasured potential confounding factors of the association. The
	results are well presented, and interpretation of results are clear. I
	highly recommended the protocol to be published.

REVIEWER	Amy Wright
	Lawrence S. Bloomberg Faculty of Nursing
	University of Toronto
REVIEW RETURNED	20-May-2019

GENERAL COMMENTS	1) Page 7 line 32the authors describe a significant number of missing Parent Survey scores (2140). It is not clear what the total number of families this number draws from, so the reader cannot assess the potential impact of this missing data. Authors state "we addressed the missing data using multiple imputations as previously described"I think this needs further explanation for this missing data, as I don't appreciate how this has been addressed in earlier text. 2) page 9 line 13 & table 1where did data for confounding
	variables noted in table 1 originate from? (I see these in appendix Table 1, this should be linked/cited within your article) 3) Further explanation of how First Nations researchers and stakeholders were actively engaged in the study is needed here on page 10. Are any of the authors these researchers/stakeholders? What decisions did they make, how were they ethically consulted and involved/engaged throughout the study? How did they help to interpret findings?
	 4) Page 18 line 29. I think your conclusions here need to be more specific. How are they working?You've identified 2 specific outcomes (only) that seem to be improved by these programs. This does not in turn mean that the programs are "working" more generally, as this statement implies. 5) Page 19 line 13: Who are "hard to reach families"? Are you implying First Nations families are hard to reach or does this terminology include other families? 6) Did you include all First Nations families, or only those with Status? If the latter, this has implications on your findings and should be included in your limitations.

VERSION 1 – AUTHOR RESPONSE

Reviewer(s)' Comments to Author:

Reviewer: 1

Reviewer Name: Lynn Kemp

Institution and Country: Western Sydney University, Australia Please state any competing interests or

state 'None declared': None declared

Please leave your comments for the authors below.

This is a well written paper, however, for the international audience some minor change is needed. Specifically, within the abstract, key points, and introduction the authors need to make clear that this

study is of the Indigenous sub-population of a program that serves both Indigenous and non-Indigenous at-risk families. This is not made clear until the last paragraph of the introduction. Making this clear in the abstract and key points would enhance the reader's engagement with the paper.

Author Response: Thank you for your comments. We have added details about who is eligible to participate in the program in the abstract and key points (track changes in these sections), and have provided this information earlier in the introduction (track changes on page 4). Respectfully, we stand by our decision to use the term "First Nations" in the abstract and key points (even though Indigenous is more easily understood by international audiences), since this is the term our First Nations partners and co-authors prefer. In the introduction, where there is more room to provide context, we have explained our focus on the First Nations sub-population of Indigenous Manitobans (footnote on page 4).

Reviewer: 2

Reviewer Name: Ha Nguyen

Institution and Country: University of South Australia, Australia University of Sydney, Australia Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below.

Thank you for giving me the opportunity to review this manuscript. This is a well conducted study and the method used is sound. The analyses of association between program exposure and health/social outcome are robust with the application of inverse probability of treatment weights to control for measured and unmeasured potential confounding factors of the association. The results are well presented, and interpretation of results are clear. I highly recommended the protocol to be published.

Author Response: Thank you for your comments.

Reviewer: 3

Reviewer Name: Amy Wright

Institution and Country: Lawrence S. Bloomberg Faculty of Nursing University of Toronto Please state any competing interests or state 'None declared': None Declared

Please leave your comments for the authors below.

1) Page 7 line 32--the authors describe a significant number of missing Parent Survey scores (2140). It is not clear what the total number of families this number draws from, so the reader cannot assess the potential impact of this missing data. Authors state "we addressed the missing data using multiple imputations as previously described"--I think this needs further explanation for this missing data, as I don't appreciate how this has been addressed in earlier text.

Author Response: In this case, our use of 'as previously described' refers to the citation that follows directly after this sentence. But we take this reviewer's point that more detail is required to adequately explain how the missing data were handled, and so we have expanded the section on multiple imputation (track changes on page 7-8).

2) Page 9 line 13 & table 1--where did data for confounding variables noted in table 1 originate from? (I see these in appendix Table 1, this should be linked/cited within your article)

Author Response: Thanks for pointing this out – it was a bit confusing as written. All appendix tables (now renamed to "supplementary tables") are cited in the article as Table S1, S2, etc., and we've added a footnote to Table 1 to clarify the data sources.

3) Further explanation of how First Nations researchers and stakeholders were actively engaged in the study is needed here on page 10. Are any of the authors these researchers/stakeholders? What decisions did they make, how were they ethically consulted and involved/engaged throughout the study? How did they help to interpret findings?

Author Response: We've added to the Patient and Public Involvement section to more fully describe our First Nations partners' involvement in the research. See track changes on page 10-11. Two of our co-authors (those with the First Nations Health and Social Secretariat of Manitoba affiliation) are First Nations.

4) Page 18 line 29. I think your conclusions here need to be more specific. How are they working?--You've identified 2 specific outcomes (only) that seem to be improved by these programs. This does not in turn mean that the programs are "working" more generally, as this statement implies.

Author Response: We have changed this statement to the following: "...the family-centered and strength-based approaches on which FFHV is based are effective at improving these aspects of public health" on page 19.

5) Page 19 line 13: Who are "hard to reach families"? Are you implying First Nations families are hard to reach or does this terminology include other families?

Author Response: This terminology includes other families – we have added more detail to help clarify what we mean on page 20.

6) Did you include all First Nations families, or only those with Status? If the latter, this has implications on your findings and should be included in your limitations.

Author Response: We used four different data sources (Families First Home Visiting data, the Indigenous & Northern Affairs Canada registry, data from a prenatal benefit program in Manitoba, and income assistance data) to determine First Nations identity. The Indigenous & Northern Affairs Canada registry is a record of First Nation Status, whereas the other three datasets are based on individuals self-identifying as First Nations. We therefore included in the study cohort all individuals in Manitoba who had either self-identified as First Nations and/or had First Nations Status.

VERSION 2 – REVIEW

REVIEWER	Amy Wright
	Lawrence S. Bloomberg Faculty of Nursing, University of Toronto,
	Toronto, Canada.
REVIEW RETURNED	11-Jun-2019

GENERAL COMMENTS	The authors have done an excellent job in meeting the requested
	revisions of the reviewers.